

OK to Substitute

enter:

Specification

MBAW
10-30-07

10/524129

DT05 Rec'd PCT/PTO 10 FEB 2009

[10191/3730]

METHOD, COMPUTER PROGRAM AND OPEN- AND/OR CLOSED-LOOP CONTROL UNIT FOR OPERATING AN ACTUATOR HAVING A CAPACITATIVE ELEMENT, AND INTERNAL COMBUSTION ENGINE

5

FIELD OF THE INVENTION

The present invention relates to a method for operating an actuator having a capacitative element, an ohmic resistance

10 being connected in parallel with the capacitative element and the value of the ohmic resistance being sensed at specific points in time.

BACKGROUND INFORMATION

15

A method is referred to in Published Patent Application No. DE 199 58 406 A1, which describes a piezoactuator that is used, for example, in a fuel injector. The piezoactuator behaves similarly to a capacitative element in electrical terms, and 20 is therefore itself often referred to as a capacitative element. The capacitative element is longer or shorter depending on its charge state. The change in length of the capacitative element is transferred to a valve element of the fuel injector.

25

In the event of an interruption in activation of the capacitative element, or a malfunction of one of the components, it may happen that the capacitative positioner remains continuously in one specific position because it can 30 no longer be discharged. In a context of use in a fuel injector, the result of this may be, for example, that the.

80 32188862 US